Figure 1
(Prior Art)

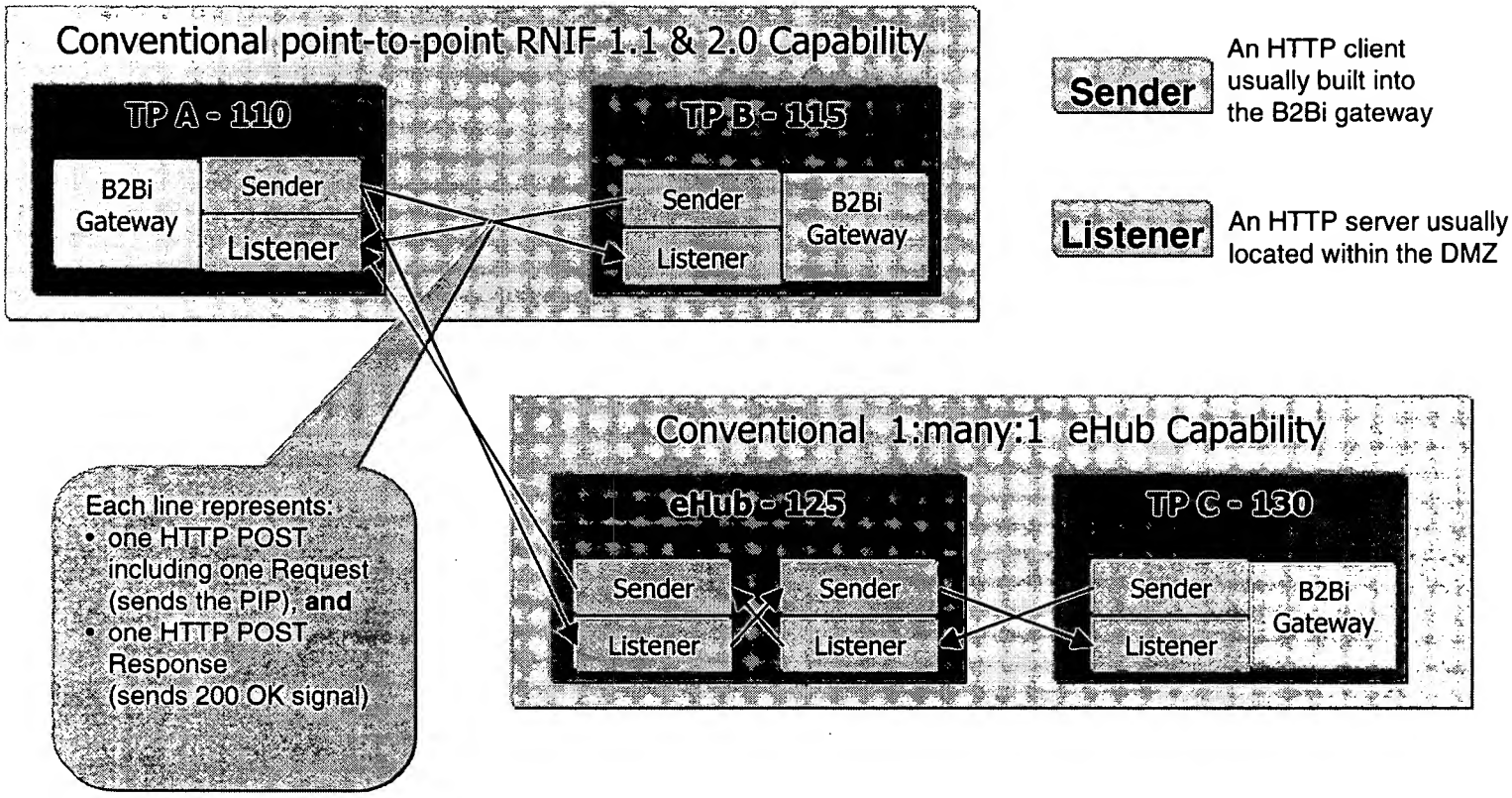
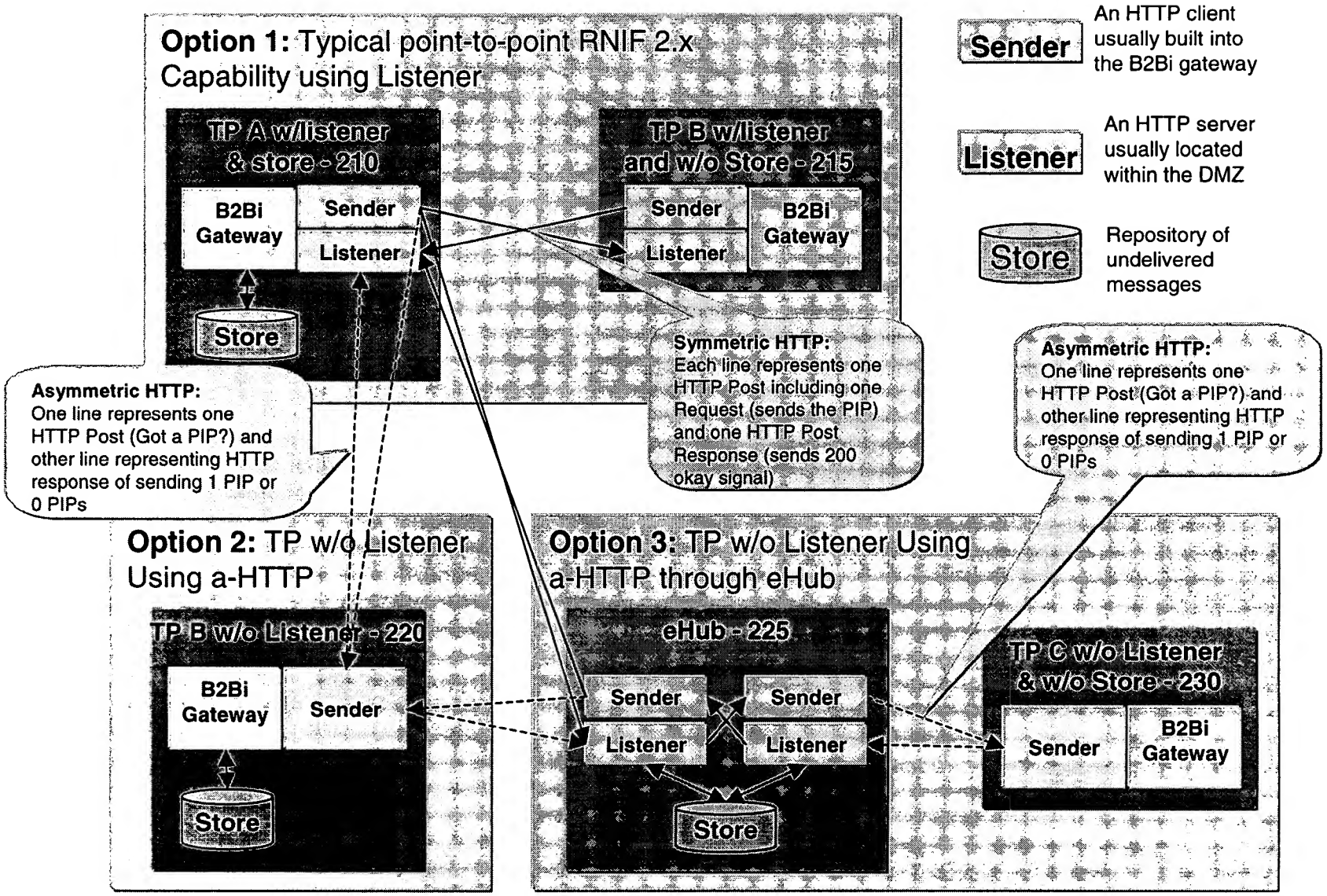
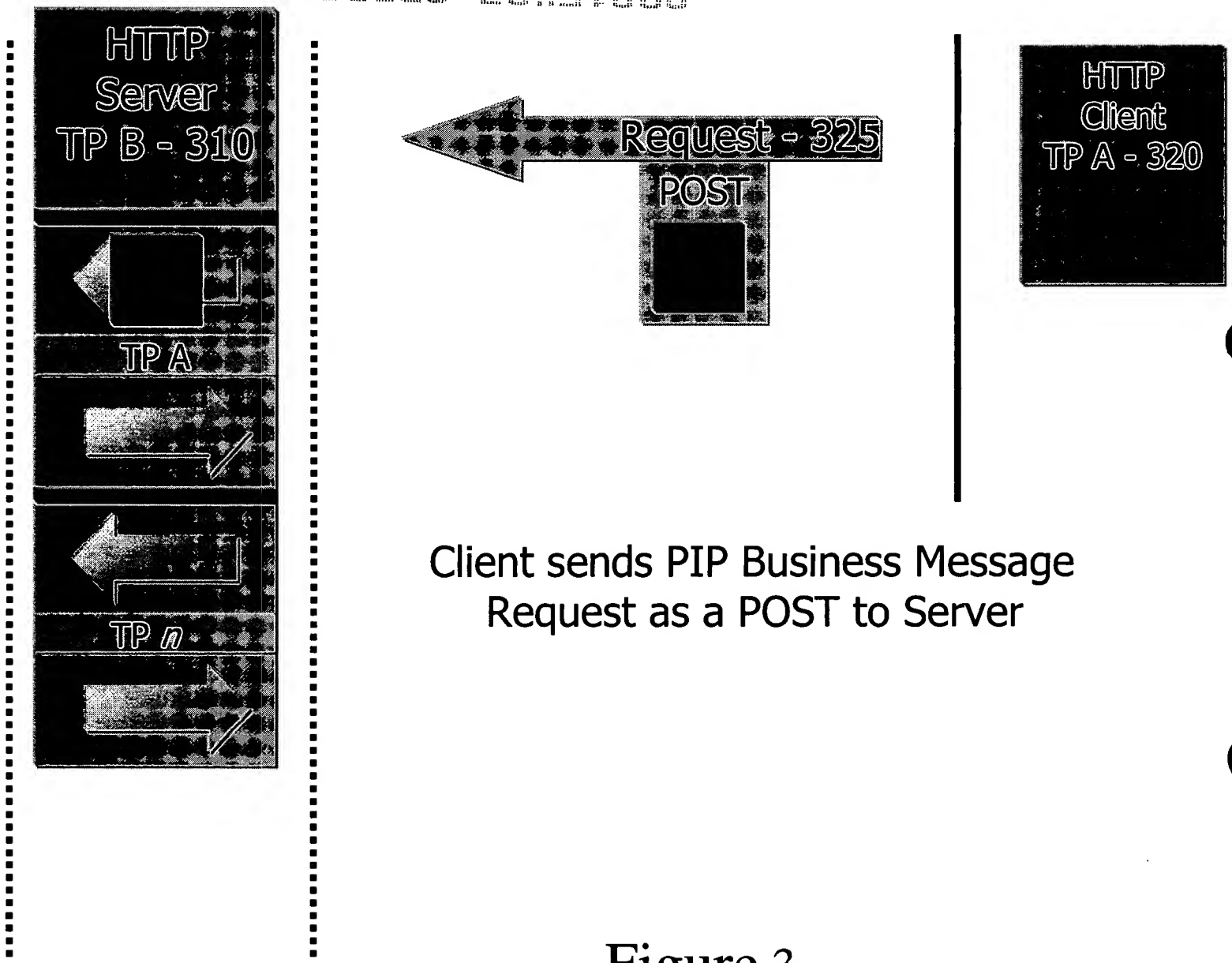


Figure 2

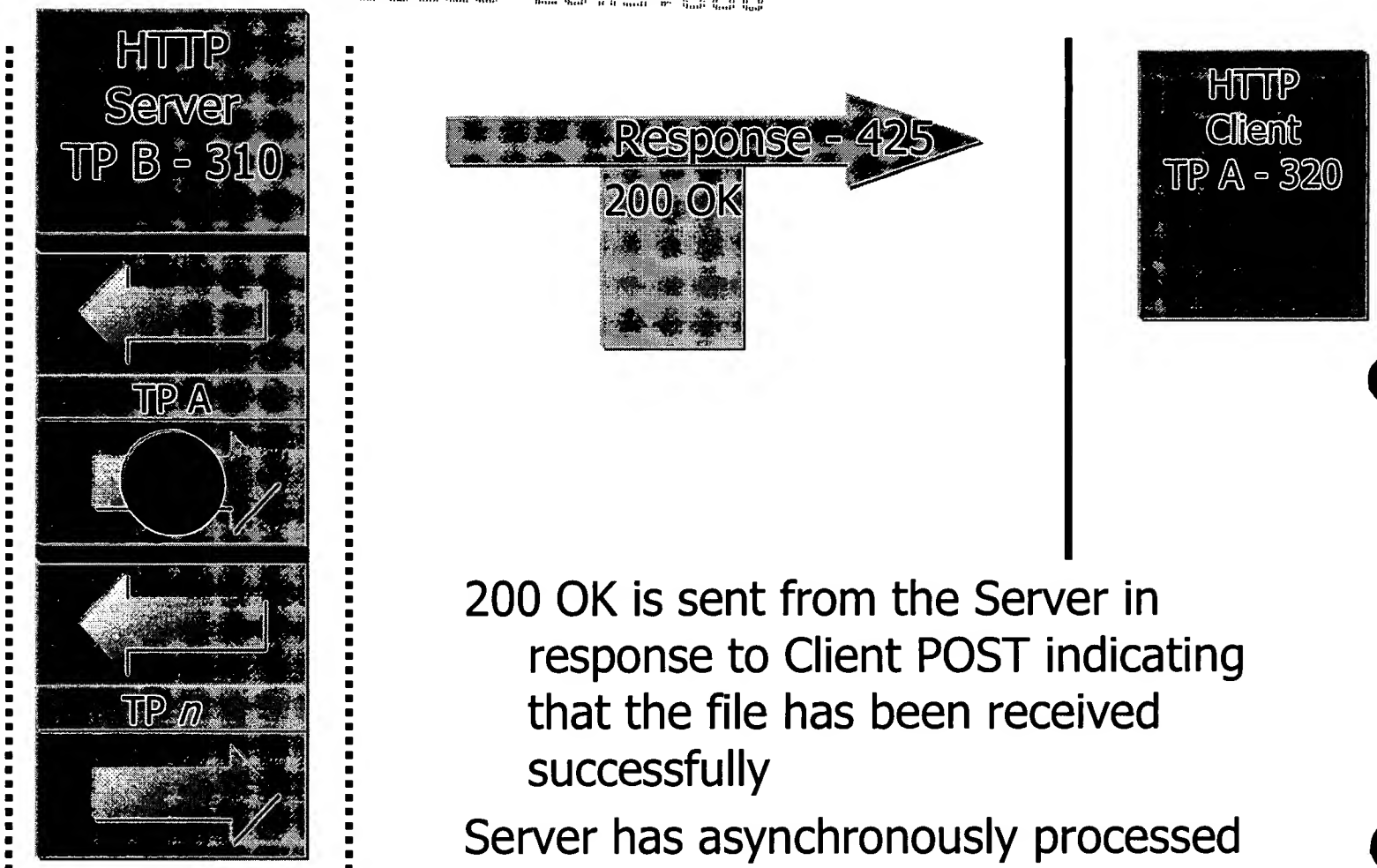

Option 1: Typical point-to-point RNIF 2.x Capability using Listener
TP A w/listener & store - 210
B2Bi Gateway
Sender
Listener
Store
TP B w/listener and w/o Store - 215
Sender
Listener
B2Bi Gateway
Asymmetric HTTP: One line represents one HTTP Post (Got a PIP?) and other line representing HTTP response of sending 1 PIP or 0 PIPs
Symmetric HTTP: Each line represents one HTTP Post including one Request (sends the PIP) and one HTTP Post Response (sends 200 okay signal)
Asymmetric HTTP: One line represents one HTTP Post (Got a PIP?) and other line representing HTTP response of sending 1 PIP or 0 PIPs
Sender
An HTTP client usually built into the B2Bi gateway
Listener
An HTTP server usually located within the DMZ
Store
Repository of undelivered messages
Option 2: TP w/o Listener Using a-HTTP
TP B w/o Listener - 220
B2Bi Gateway
Sender
Store
Option 3: TP w/o Listener Using a-HTTP through eHub
eHub - 225
Sender
Sender
Listener
Listener
Store
TP C w/o Listener & w/o Store - 230
Sender
B2Bi Gateway

T02320 "26+5T360



Client sends PIP Business Message Request as a POST to Server

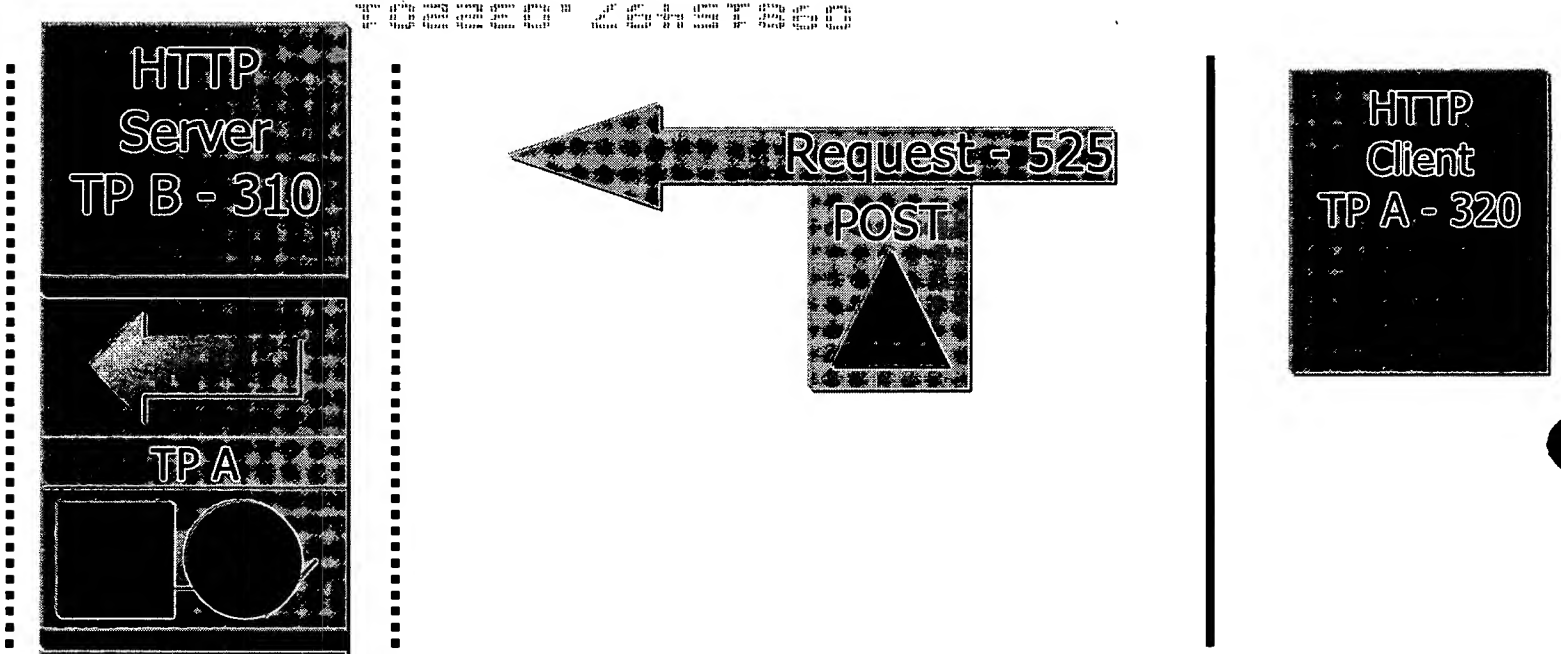
Figure 3



200 OK is sent from the Server in response to Client POST indicating that the file has been received successfully

Server has asynchronously processed the data and has queued a Receipt Acknowledgement

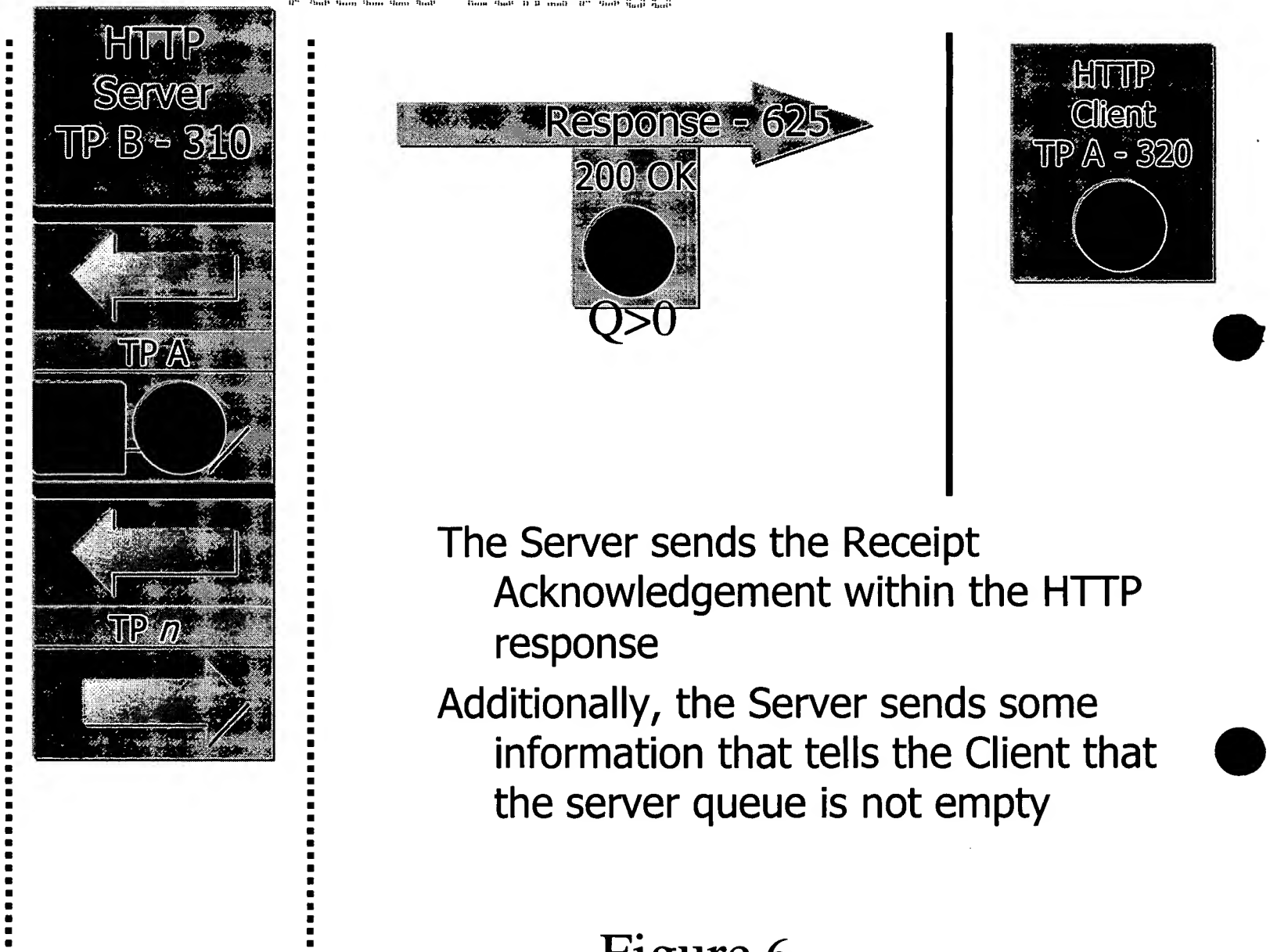
Figure 4



With configurable frequency the Client makes a request (polling) to the Server using a POST.

Trading-Partner-B has queued a business message 530 for Trading-Partner-A

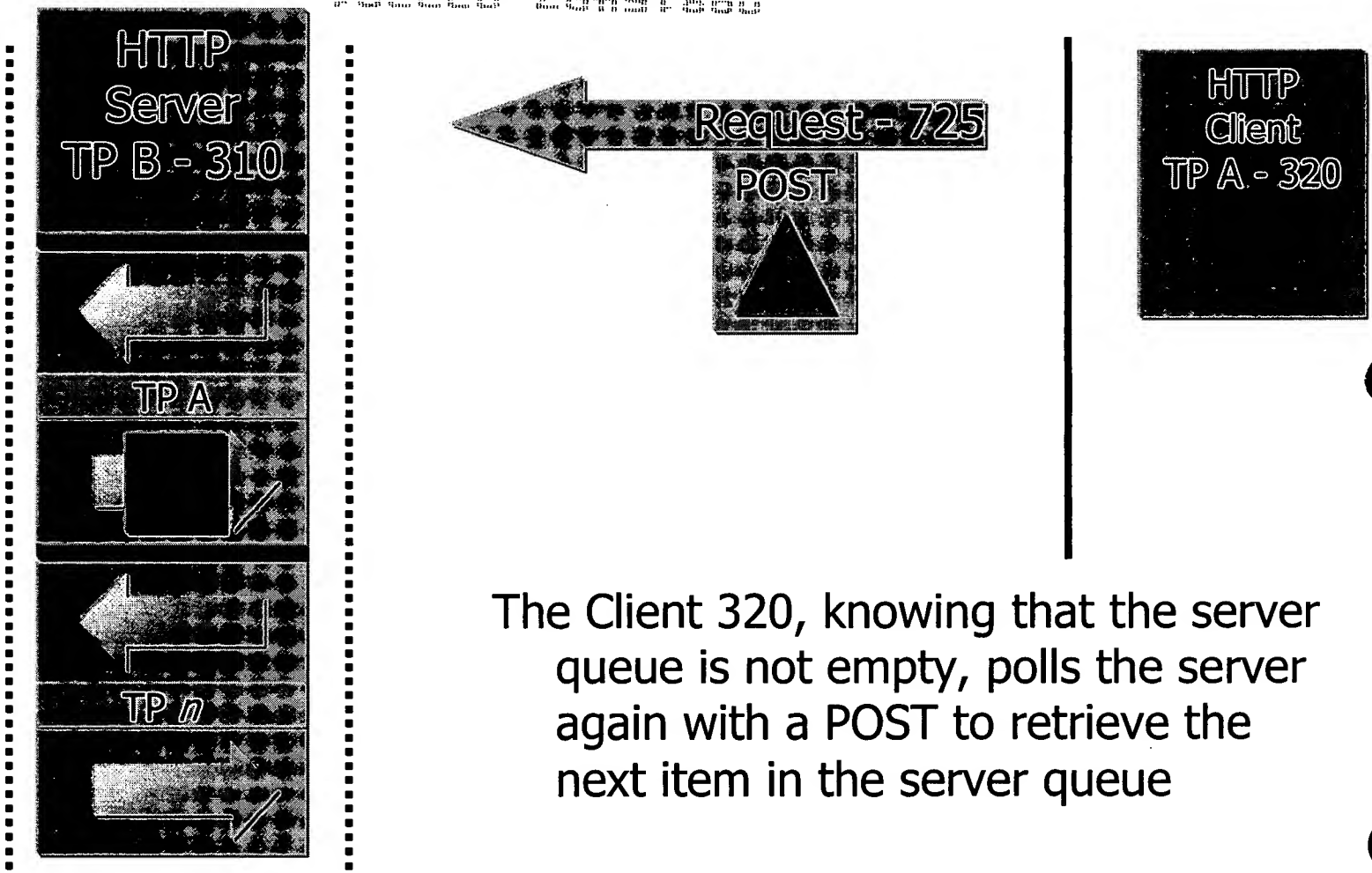
Figure 5



The Server sends the Receipt Acknowledgement within the HTTP response

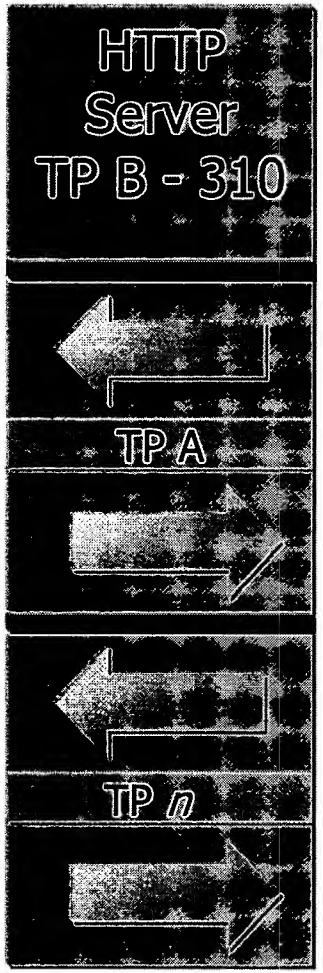
Additionally, the Server sends some information that tells the Client that the server queue is not empty

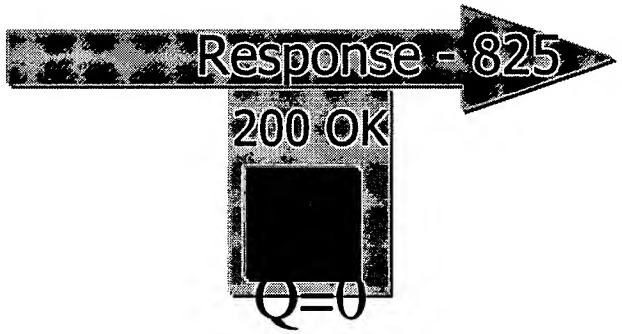
Figure 6

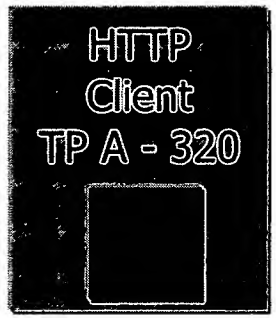


The Client 320, knowing that the server queue is not empty, polls the server again with a POST to retrieve the next item in the server queue

Figure 7







The business message is sent in the response to the Client

PIP is initiated (timers begin) when business message is delivered

The Server also tells the Client that the queue is empty

The Client sleeps until it needs to send something or it is time to poll again

Figure 8

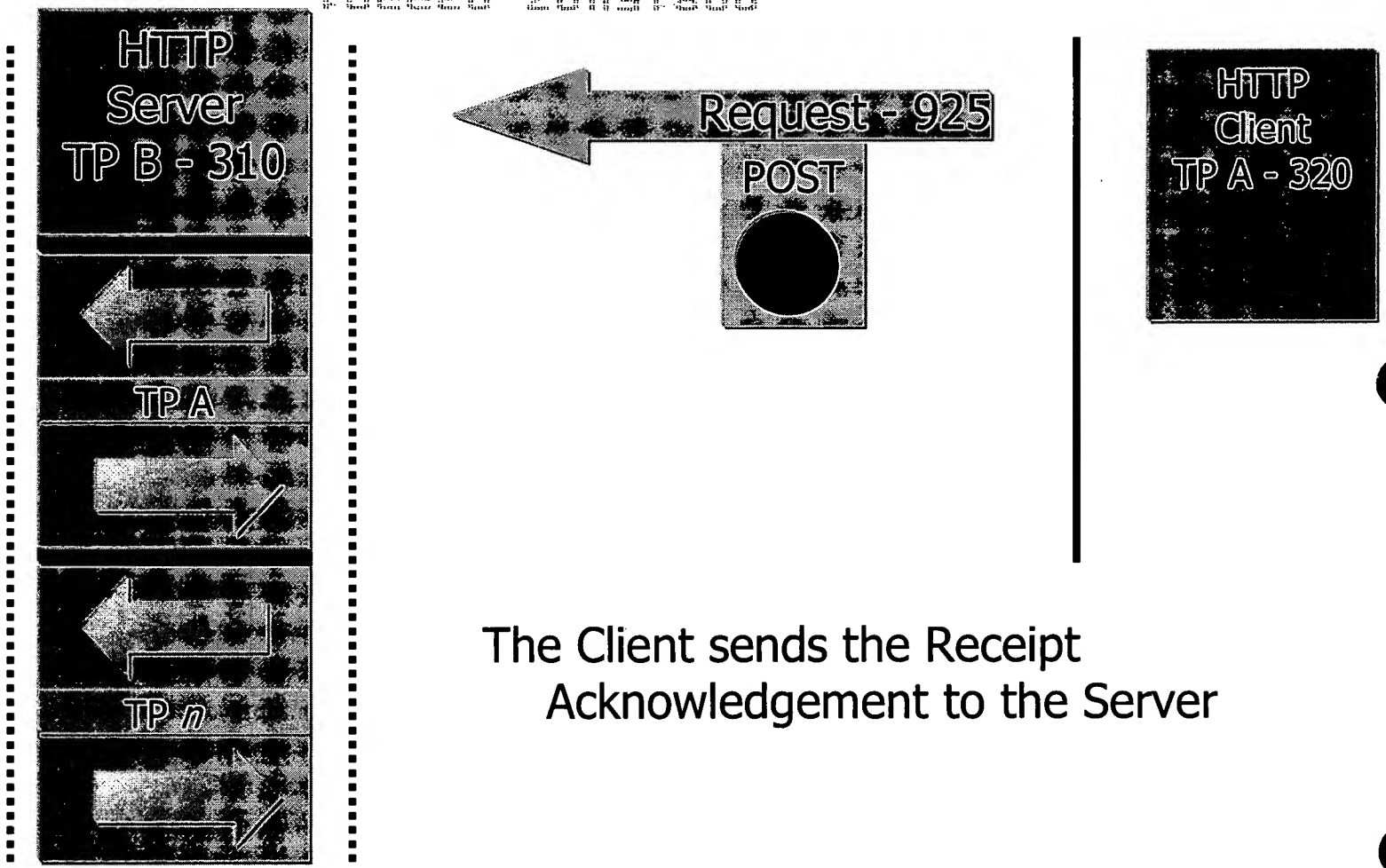
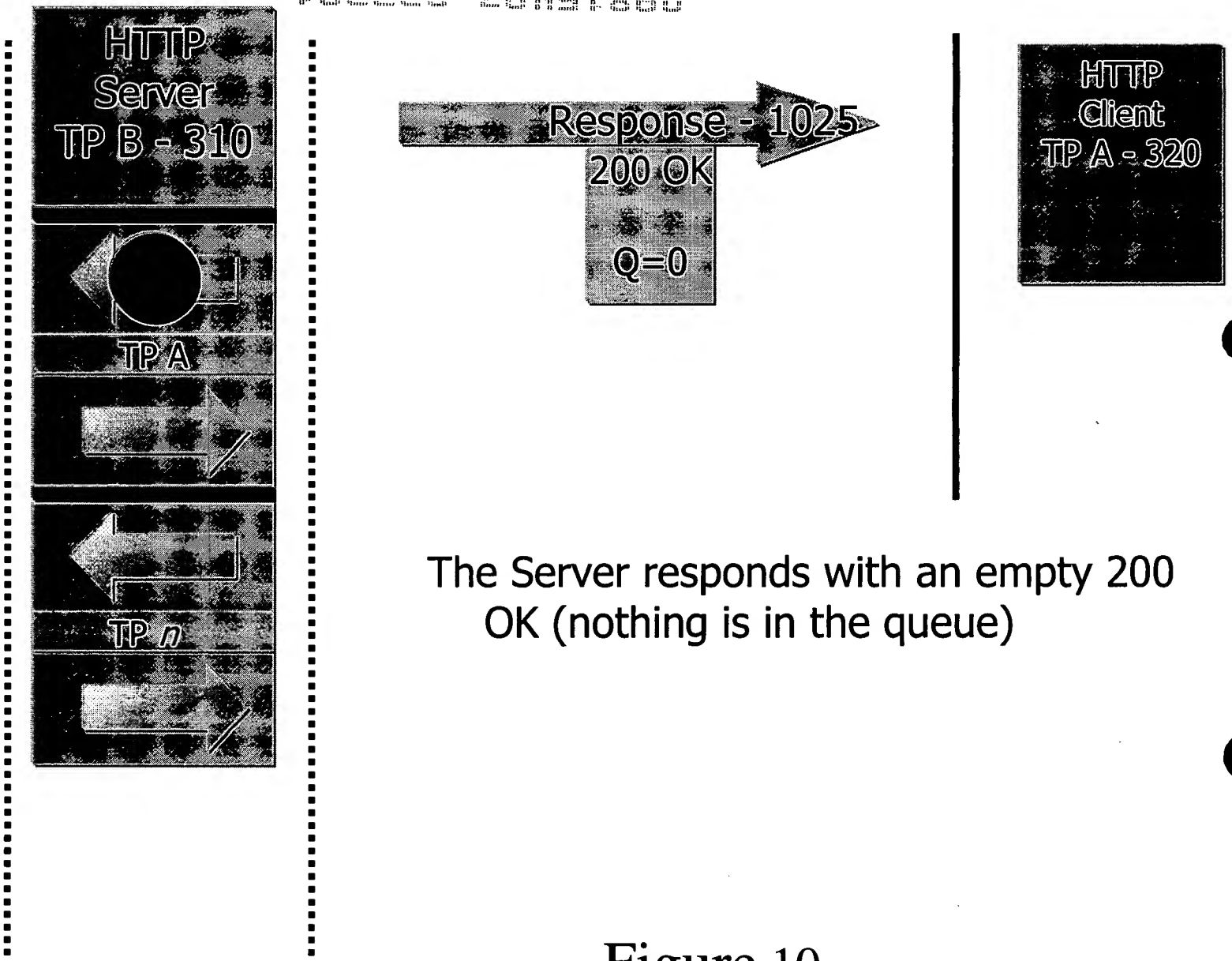

HTTP
Server
TP B - 310
TP A
TP n
Request - 925
POST
HTTP
Client
TP A - 320
The Client sends the Receipt
Acknowledgement to the Server

Figure 9



The Server responds with an empty 200 OK (nothing is in the queue)

Figure 10

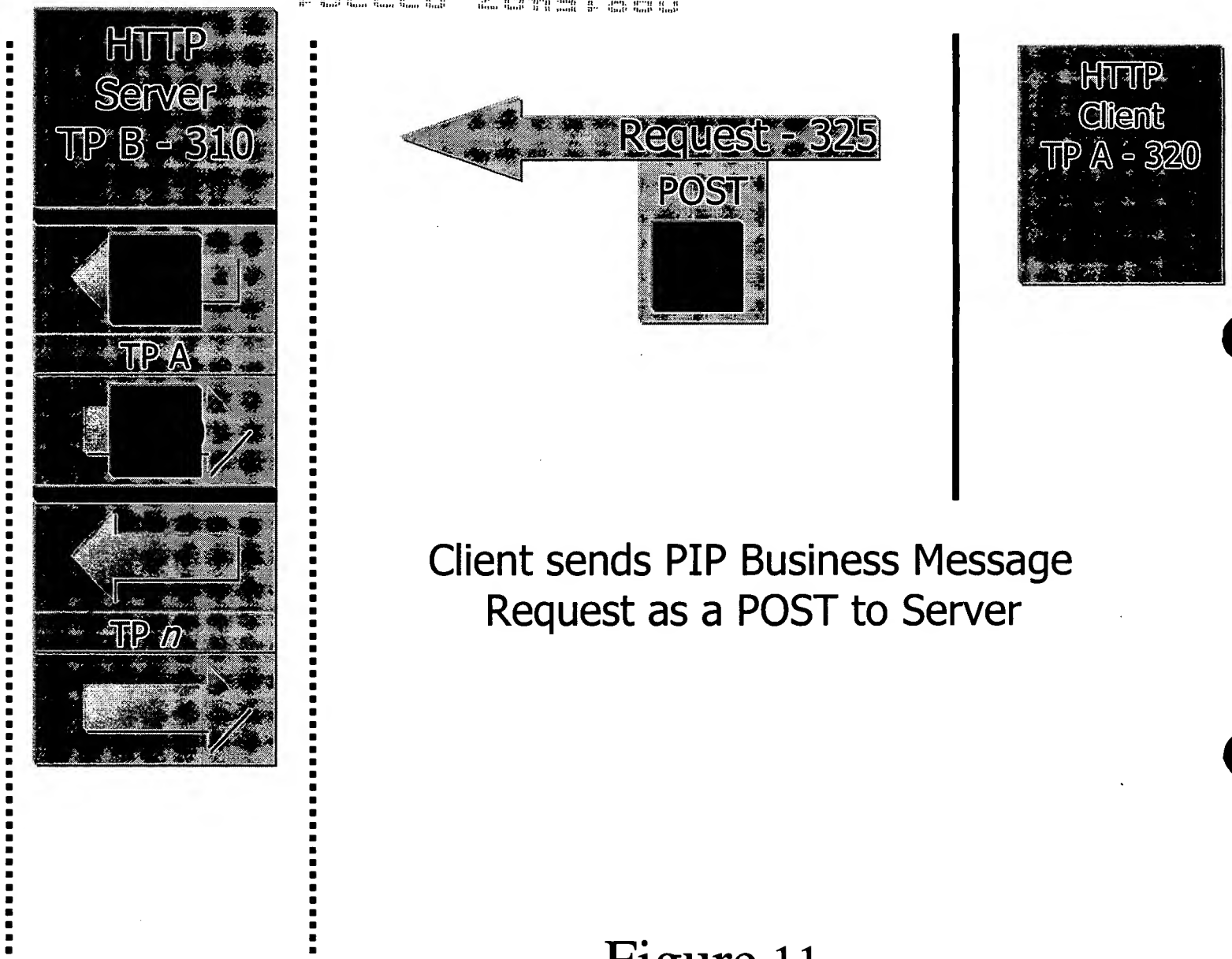
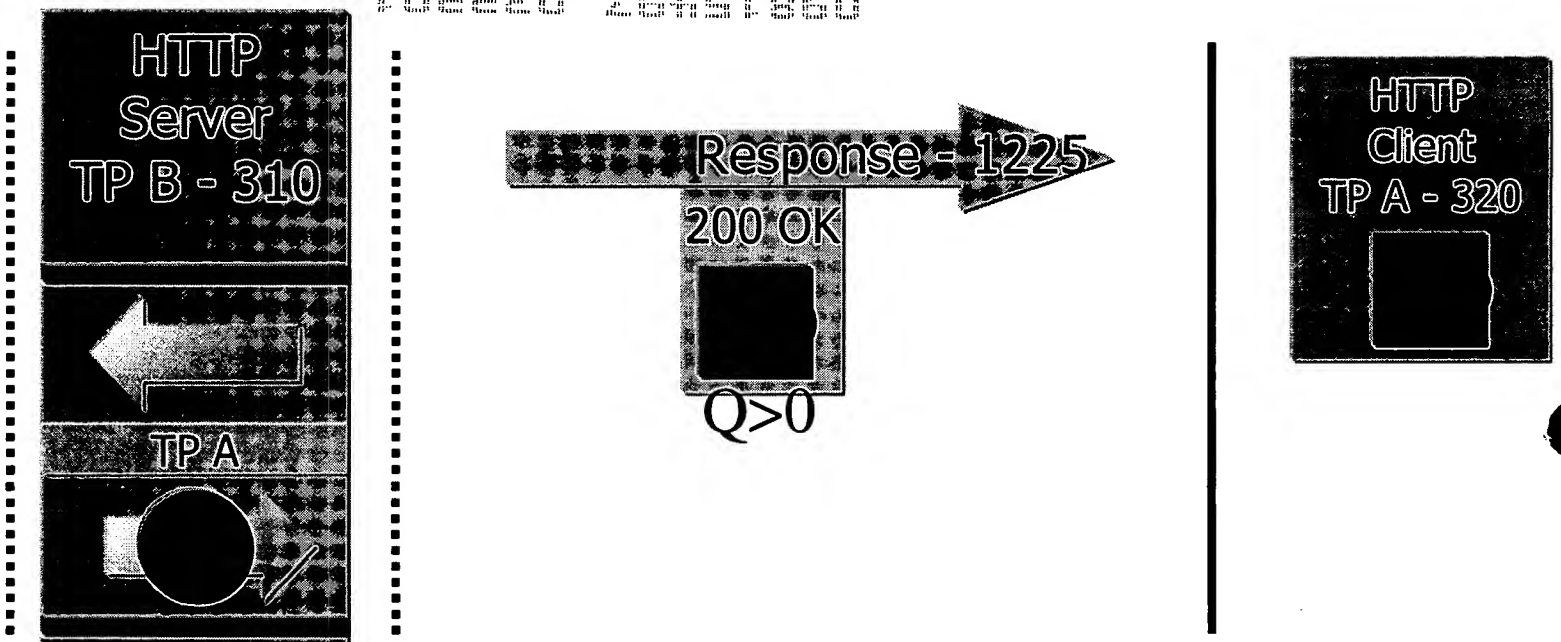

HTTP
Server
TP B - 310
TP A
TP n
Request - 325
POST
HTTP
Client
TP A - 320
Client sends PIP Business Message
Request as a POST to Server

Figure 11



200 OK is sent from the Server in response to Client POST indicating that the file has been received successfully. Queued message is attached and sent back to Client

Server has asynchronously processed the data and has queued a Receipt Acknowledgement

Figure 12

FOREIGN PATENT

Figure 13

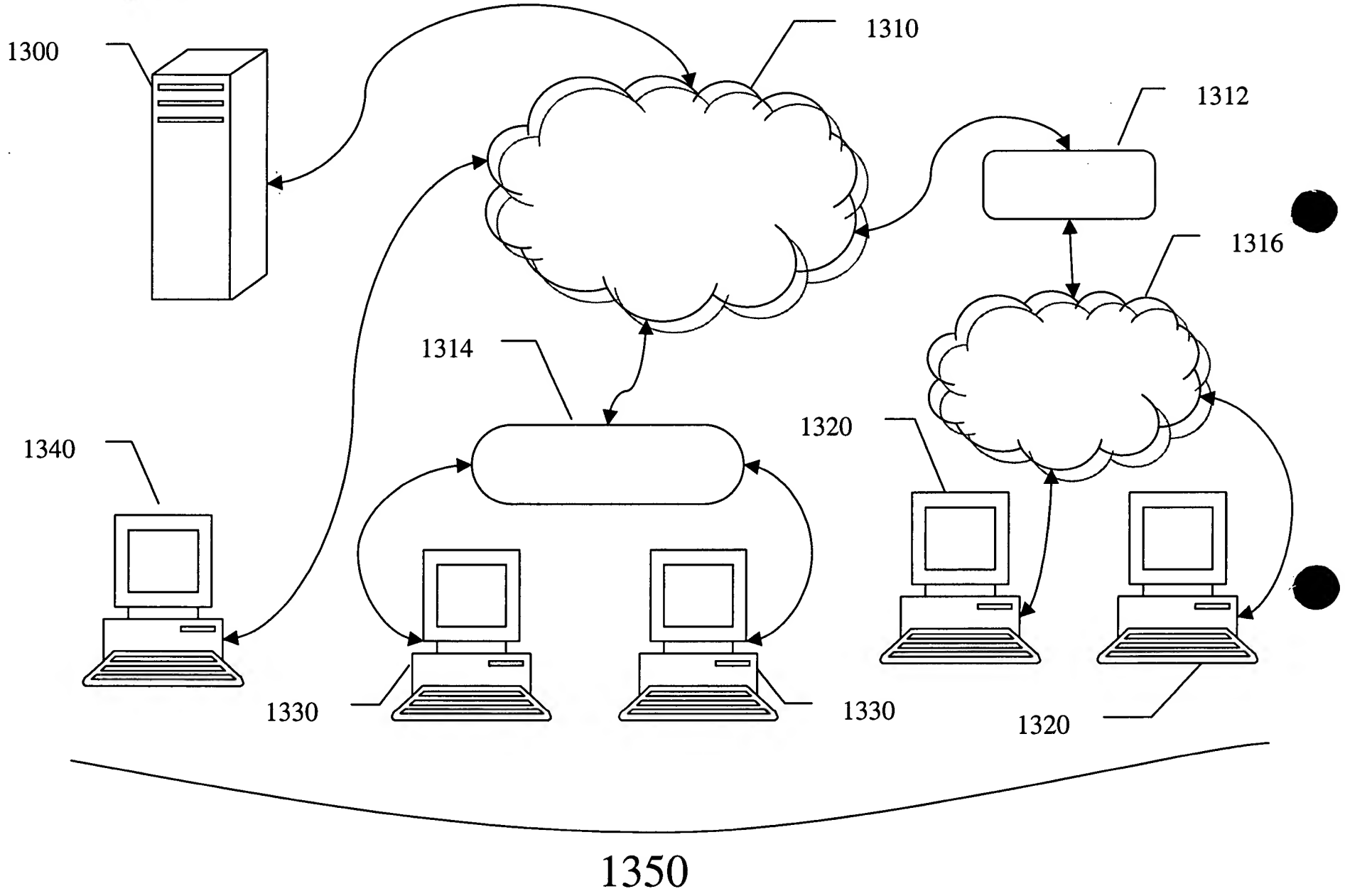
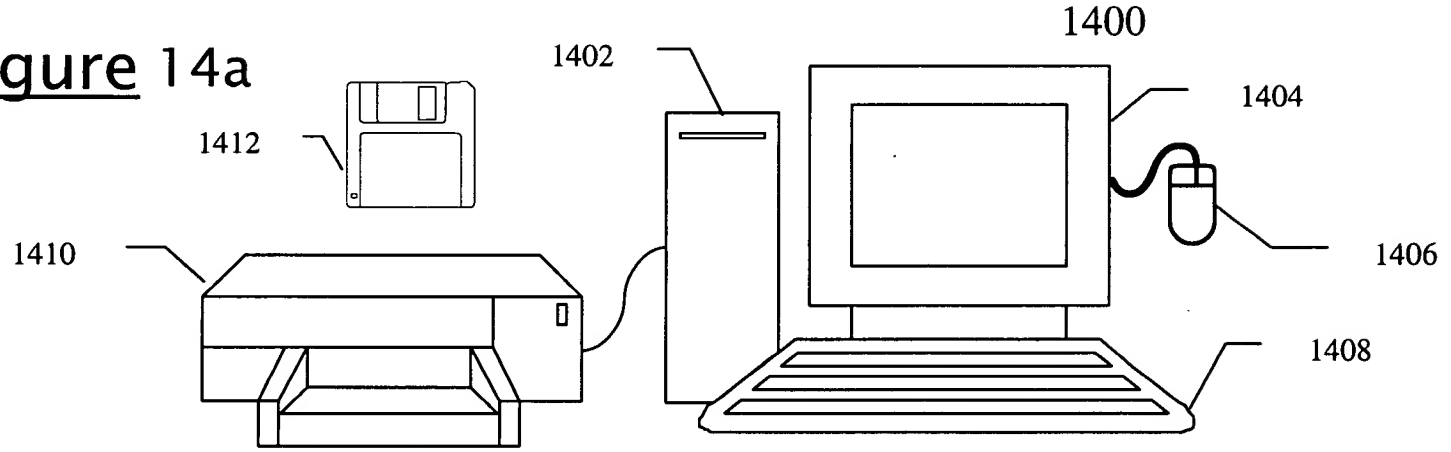


Figure 14a



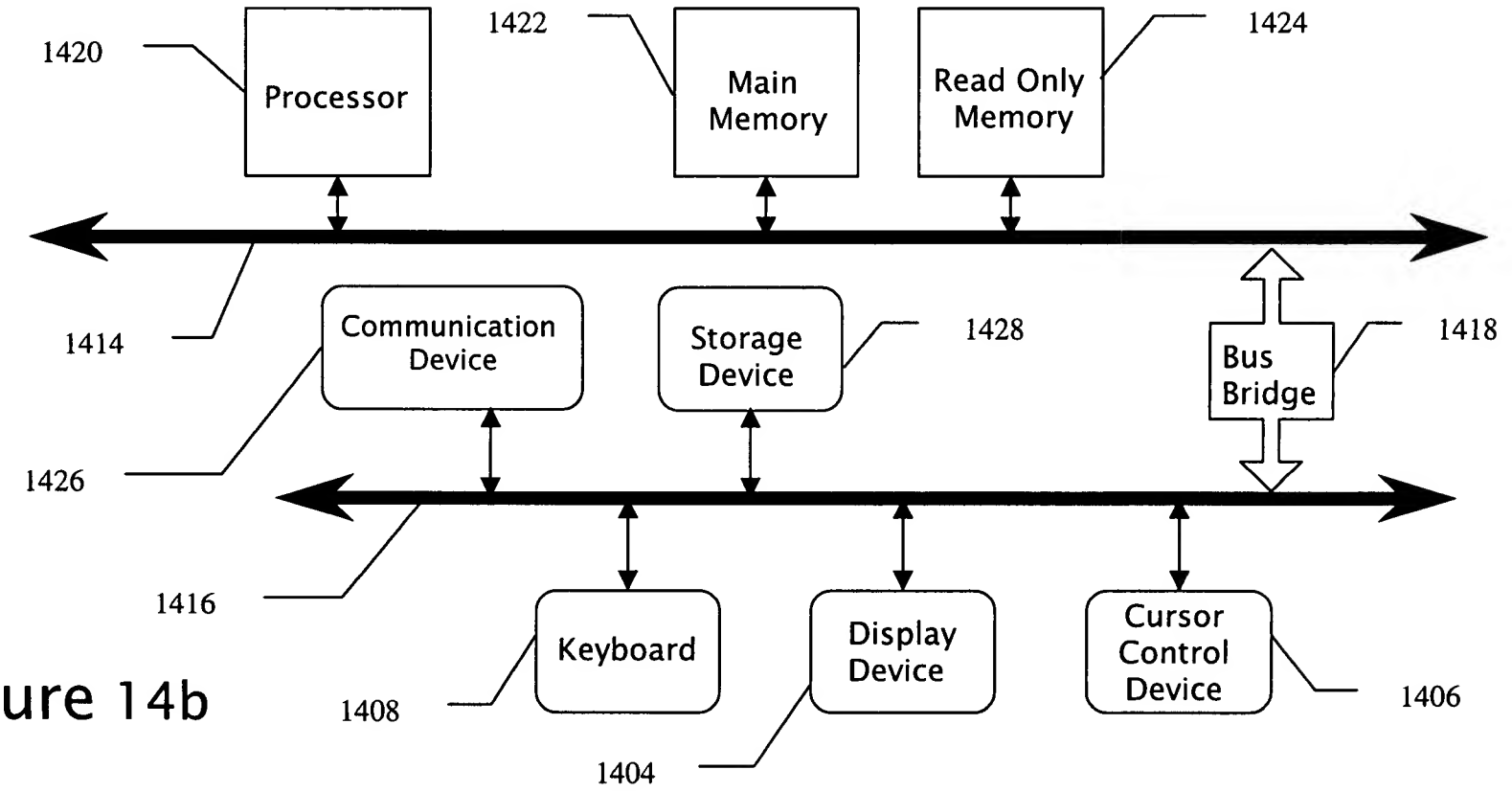


Figure 14b